CLAIMS

1. **Direct coupled resonator filter** having a plurality of resonant cavities (15) such that an inner (18) wall separates two adjoining resonant cavities (15) coupled by means of a coupling (16) means, **characterised** in that the inner (18) wall is configured to include a slot (20) such that the coupling (16) means makes electrical contact with at least an edge surface of the slot (20).
2. **Direct coupled resonator filter** according to claim 1; the edge surface of the slot (20) is the horizontal edge surface.
3. **Direct coupled resonator filter** according to claim 2; the coupling (16) means and a vertical plane defined by the slot (20) are perpendicular.
4. **Direct coupled resonator filter** according to claim 3; both the inner (18) wall and the coupling (16) means are made of metallic material.
5. **Direct coupled resonator filter** according to claim 1; each cavity (15) having a resonator (14).
6. **Direct coupled resonator filter** according to claim 5; the resonator (14) is a dielectric resonator.
7. **Direct coupled resonator filter** according to claim 5; the resonator (14) is a coaxial resonator.
8. **Direct coupled resonator filter** according to claim 4, the slot (20) being located in the upper edge surface of the inner (18) wall.
9. **Direct coupled resonator filter** according to claim 8, each inner (18) wall being in contact with an upper lid, surrounding walls, other inner walls and a bottom lid of the housing (11) of the filter.
10. **Dielectric resonator filter** according to claim 9, a mechanical fastening (17) means being adapted to fasten each coupling (16) means to each inner (18) wall.
11. **Dielectric resonator filter** according to claim 10, the mechanical fastening (17) means being a screw.
12. **Dielectric resonator filter** according to claim 1, the coupling (16) means and the inner (18) wall being made in a single piece of the same material such as a metallic material.
13. **Coupling means** according to claim 1, being a probe.
14. **Coupling means** according to claim 13, the probe being adapted to present different cross sections.